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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,449	12/02/2003	Dimitre Hristov Hristov	2003P11789US	6754

7590 10/19/2005

Siemens Corporation  
Attn: Elsa Keller, Legal Administrator  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

EXAMINER
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LEE, SHUN K

ART UNIT	PAPER NUMBER
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2884

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/726,449

Applicant(s)

HRISTOV ET AL.

Examiner

Shun Lee

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing address of each inventor (*i.e.*, it does not identify the city and state). A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

### ***Specification***

2. The disclosure is objected to because of the following informalities: "43" in line 28 on pg. 7 should probably be --46-- (37 CFR 1.84(p)(4)). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Petrillo (US 5,616,924).

In regard to claim 1, Petrillo discloses (Fig. 6) an apparatus comprising:

- (a) a scintillator (22) to emit light;

(b) imaging elements (30) to capture image information based on received light; and  
(c) an optical filter (54) disposed between the scintillator (22) and the imaging elements (30), wherein an opacity of the optical filter (54) is controllable (column 5, lines 5-19).

In regard to claim **2** which is dependent on claim 1, Petrillo also discloses (column 5, lines 26-29; Fig. 6) that the imaging elements (30) comprise a plurality of charge-coupled devices.

In regard to claim **3** which is dependent on claim 1, Petrillo also discloses (column 5, lines 26-29; Fig. 6) that the imaging elements (30) comprise a plurality of photodiodes.

In regard to claim **4** which is dependent on claim 1, Petrillo also discloses (column 4, lines 54-64; Figs. 4 and 6) a control (60) to control an opacity of the optical filter (54).

5. Claims 20, 21, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Meccariello *et al.* (US 5,003,572).

In regard to claims **20** and **21**, Meccariello *et al.* disclose (column 12, lines 20-61; Fig. 1) a method comprising controlling an amount of light to be received by imaging elements (44) based on a determined dose by controlling the opacity of an optical filter (48) disposed between a scintillator (35) and the imaging elements (44).

In regard to claims **23** and **24**, Meccariello *et al.* is applied as in claims 20 and 21 above. Meccariello *et al.* also disclose (column 12, lines 20-61) that the method can be

implemented with a microcomputer. A computer-readable medium storing processor-executable process steps is inherent in the microcomputer of Meccariello *et al.*

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrillo (US 5,616,924) in view of Armistead (US 4,852,131).

In regard to claims 5 and 7 which are dependent on claim 1, while Petrillo also discloses (column 1, lines 8-15) that the invention find particular application to computerized tomographic scanners, the apparatus of Petrillo lacks an explicit description of a linear accelerator to emit X-rays which are received by the scintillator and the scintillator to emit light based on the received X-rays. However, computerized

tomographic scanners are well known in the art. For example, Armistead teaches (column 3, lines 53-64) a computed tomography system includes a conventional radiation source such as a linear accelerator. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a linear accelerator in the apparatus of Petrillo, in order to perform computerized tomographic scanning.

In regard to claim 6 which is dependent on claim 5, Petrillo also discloses (Fig. 6) that the optical filter (54) to receive at least a portion of light emitted by the scintillator (22).

9. Claims 8-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrillo (US 5,616,924) in view of Pochwalski (US 4,205,231).

In regard to claims 8 and 9 which are dependent on claim 1, the apparatus of Petrillo lacks that one or more of the plurality of optical filters is movable from a first position between the scintillator and the imaging elements to a second position that is not between the scintillator and the imaging elements. Pochwalski teaches (column 2, lines 3-22) that an adjustable light flux attenuator (e.g., spring 6 controlled by a transmission) may be fully withdrawn, thus reducing the initial light attenuation caused by the light flux attenuator to a practically negligible value. Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a plurality of movable optical filters in the apparatus of Petrillo, in order to obtain light attenuation which can be adjusted in fine increments from a practically negligible value to total attenuation.

In regard to claims **10-15** and **19**, Petrillo in view of Pochwalski is applied as in claims 1-4, 8, and 9 above.

10. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrillo (US 5,616,924) in view of Pochwalski (US 4,205,231) as applied to claim 10 above, and further in view of Armistead (US 4,852,131).

In regard to claims **16-18** which are dependent on claim 10, Armistead is applied as in claims 5-7 above.

11. Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petrillo (US 5,616,924) in view of Pochwalski (US 4,205,231) and Meccariello *et al.* (US 5,003,572).

In regard to claims **20-25**, Petrillo in view of Pochwalski is applied as in claims 1-4, 8, and 9 above. The method of Petrillo lacks a computer-readable medium storing processor-executable process steps to control the amount of light to be received by imaging elements based on a determined dose. Meccariello *et al.* teach (column 12, lines 20-61; Fig. 1) a microcomputer executing the process steps of controlling an amount of light to be received by imaging elements (44) based on a determined dose by controlling the opacity of an optical filter (48) disposed between a scintillator (35) and the imaging elements (44), in order to obtain automatic brightness control of an X-ray image (column 2, lines 23-42). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a computer-readable medium storing processor-executable process steps in the apparatus of Petrillo, in order to obtain automatic brightness control of an X-ray image.


**Conclusion**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (571) 272-2439. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SL

  
CONSTANTINE HAMMAIER  
PRIMARY EXAMINER